24

DANDRITE REPORTING

AARHUS UNIVERSITY

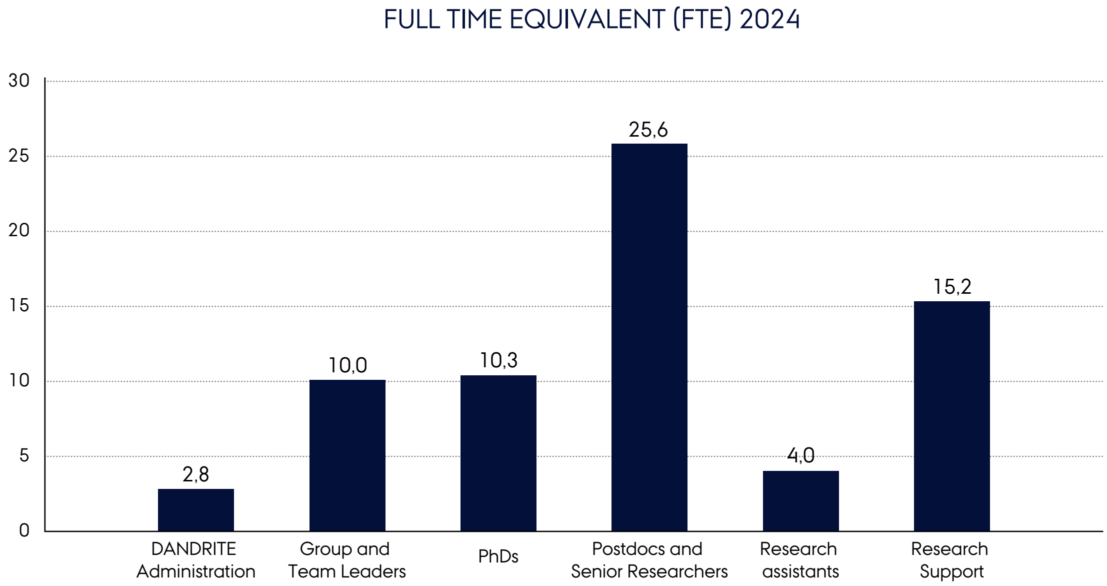
DANDRITE
Danish Research Institute of Translational Neuroscience
Nordic EMBL Partnership for Molecular Medicine

DANDRITE Reporting 2024

Cover:
Human neurons derived from induced pluripotent stem cells (purple) co-cultured with rat astrocytes (green). Image by: Anissa Hammi, PhD Student in Poul Henning Jensen's lab, 2025.

Personnel

The following pages display different graphical presentations of DANDRITE statistics. All counts exclude affiliated researchers.



Personnel figure 1: Graphic representation of the number of personnel in 2024 *counted in FTE – Full Time Equivalent* for appointed categories summarized: DANDRITE Administration, Group- and Team Leaders, PhDs, Postdocs and Senior Researchers, Research assistants, and Research Support.

COUNT OF NUMBER AND PERCENTAGES OF PERSONNEL EMPLOYED DURING 2024 GROUPED BY APPOINTMENT CATEGORY AND GENDER. FTE COUNT.

DANDRITE Personnel categories	Female	Male	Total	Percentage of personnel categories %
DANDRITE Administration	2,80		2,80	4,1
Group and Team Leaders	1,00	8,96	9,96	14,7
PhDs	9,42	0,92	10,33	15,2
Postdocs and Senior Researchers	17,13	8,46	25,58	37,7
Research assistants	2,50	1,54	4,04	6,0
Research Support	13,33	1,88	15,21	22,4
Grand Total	**46,18**	**21,75**	**67,93**	**100**
Percentage of Female/Male %	68	32	100	

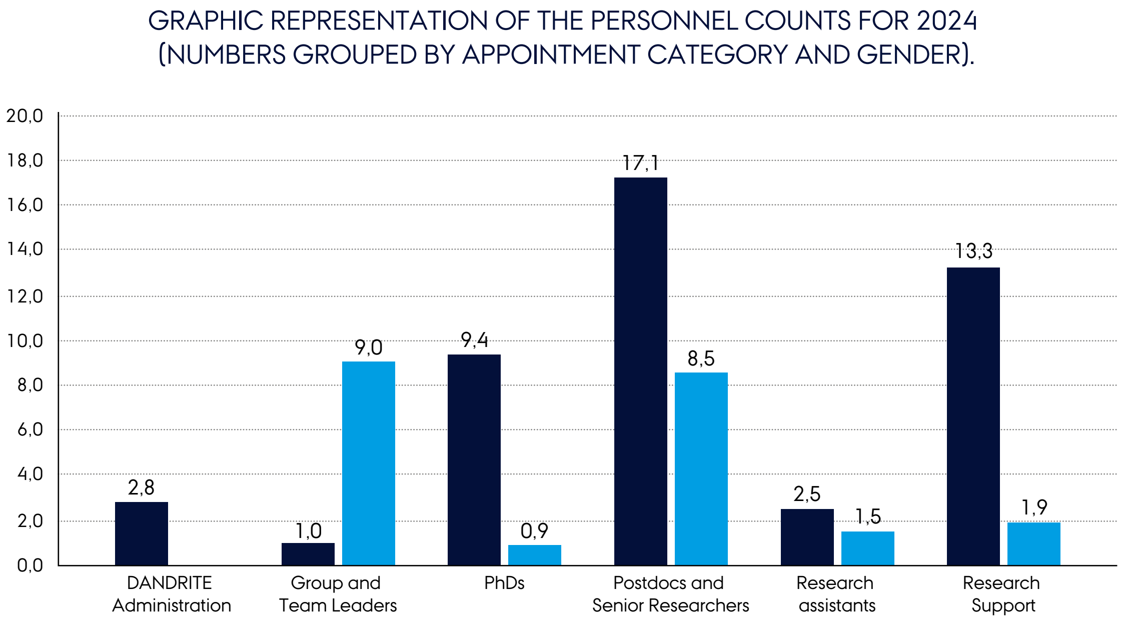


Figure 3: Graphic representation of the personnel counts for 2024 (numbers grouped by appointment category and gender).

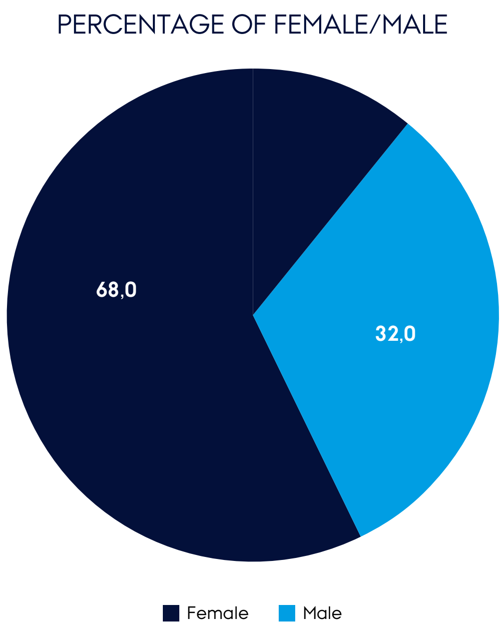


Figure 4: Graphic representation of the personnel counts for 2024 grouped by gender.

GRAPHIC REPRESENTATION OF THE NATIONALITY DISTRIBUTION OF ALL EMPLOYEES. IN TOTAL 33 NATIONALITIES.

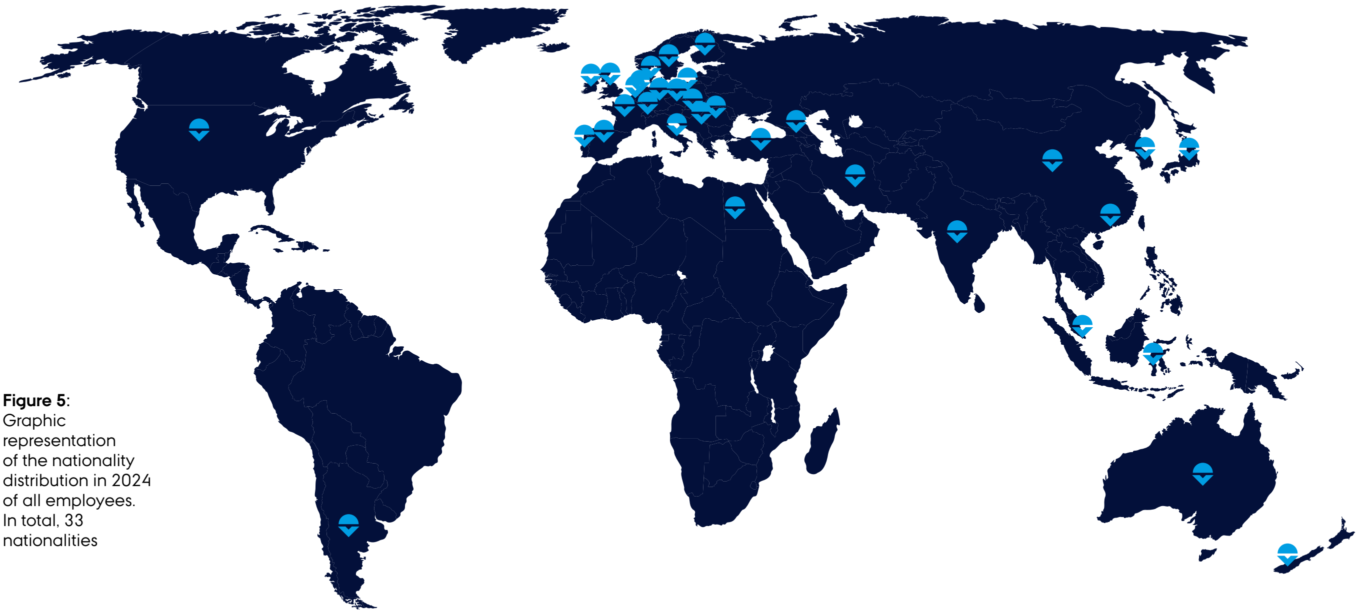


Figure 5: Graphic representation of the nationality distribution in 2024 of all employees. In total, 33 nationalities

Argentina (2) Australia (1) Belgium (3) China (2) Czech Republic (2) Denmark (33) Egypt (1) Finland(1) France (2) Georgia (1) Germany (2) Holland (1) Hong kong (1) Hungary (1) India (4) Indonesia(1) Iran (3) Ireland (1) Italy (6) Japan (8) Korea (1) New Zealand (1) Poland (1) Portugal (3) Romania (2) Serbia (1) Singapore (1) Spain (3) Sweden (1) Switzerland (2) Turkey (1) United Kingdom(1) USA (2)

GRAPHIC REPRESENTATION OF THE NATIONALITY DISTRIBUTION OF THE EMPLOYEES IN DANDRITE'S EMBL RECRUITED GL'S RESEARCH GROUPS. IN TOTAL 20 NATIONALITIES.

Figure 6: Graphic representation of the nationality distribution of the employees in DANDRITE's EMBL recruited GL's research groups.

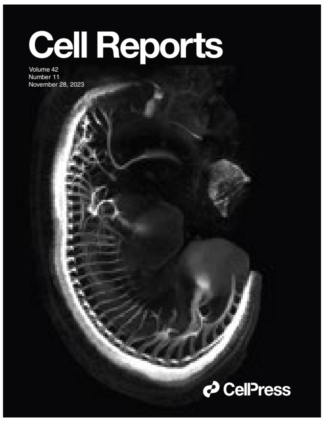
Argentina (1) Australia (1) Belgium(1) China (2) Denmark (18) Egypt(1) France (2) Georgia (1) Holland (1) Hong kong (1) Hungary (1) India (1) Iran (3) Ireland (1) Italy (6) Japan (7) New Zealand (1) Portugal (1) Singapore (1) Spain (2)

Awards and Prizes

DANDRITE Group Leader Taro Kitazawa receives the PRESTO Career Grant from the Japan Science and Technology Agency of DKK 2.500.000.
Through pioneering research focused on brain stress resilience at both the population and cellular levels, alongside the development of cutting-edge genomics technologies, Taro Kitazawa's work has a broad impact on both fundamental and advanced neuroscience. He has now been recognized with a prestigious grant from the Japan Science and Technology Agency.

DANDRITE postdoc Silvia Turchetto was awarded the Marco Capogna Young Investigator Prize 2024. The prize is awarded to a young neuroscience researcher at AU or AUH who has demonstrated excellence within his or her field of research.

DANDRITE Postdoc Nanna Møller Jensen Receives Young Researcher Award from the Parkinson's Association 2024. The award includes a personal prize of DKK 25.000.



The light-sheet microscopy image 'Tiny Titans 3D Journey' by Josef Lavicky and **DANDRITE Assistant Prof. Alena Salasova** was published as the cover photo in Cell Reports in November 2023. The image was also recognized among the Top 10 by the DNRF photo competition 2024.

Poster Prizes and Presentation Awards

DANDRITE Postdoc Maria Correia won a Poster prize at the Gordon Research Conference 2024

DANDRITE Postdoc Ankush Garg won a Poster Prize at the EMBO | EMBL Symposium 'Cellular mechanisms driven by phase separation', 2024

DANDRITE PhD student Kaho Ito won the Best Poster Prize at DANDRITE SAB & Retreat 2024 of DKK 1.000

DANDRITE Postdoc Marine Mantel received a FEBS 60th Anniversary Award for her oral presentation at the FEBS Advanced Course Fish Immunology: Molecular and Evolutionary Perspectives 2024

DANDRITE PhD student Julia Soh received a FEBS 60th Anniversary Award for her oral presentation at the FEBS Advanced Course Fish Immunology: Molecular and Evolutionary Perspectives 2024

Grants

1. Bachelor student **Mia Rosa Antorini**: Research visit to Nijmegen University - Scholar stipend, DKK 142.000, Novo Nordisk Foundation

2. Postdoc **Maria Correia**: 'Multisite phosphorylation in biomolecular condensates', DKK 1.600.000, EU - Marie Curie postdoctoral fellowship

3. Postdoc **Kristoffer Højgaard**: 'Opto- and Chemi-Knock: New Tools for Rapid Blockade of Protein Function during Memory Consolidation', DKK 2.493.260, The Lundbeck Foundation

4. Postdoc **Nanna Møller Jensen**: Research visit to Niigata University to study novel a-syn pathology in human brains, DKK 22.000, BRI Global Collaborative Research FY2024

5. Postdoc **Nanna Møller Jensen**: Research visit to Niigata University to study novel a-syn pathology in human brains, DKK 40.000, Fonden Af 2/7 1984 Til Bekæmpelse Af Parkinsons Syge

6. Postdoc **Nanna Møller Jensen**: Research project, DKK 349.000, Parkinsonforeningen

7. Research Assistant **Emily Karabeika**: Screening a candidate for enrollment at the Graduate School, DKK 30.000, Screening Grant

8. Postdoc **Yumiko K Kawamura**: Project grant 'Identification of heterochronic association of multiple epigenetic modalities on the neuronal genome', DKK 2.000.000, The Lundbeck Foundation

9. Group Leader **Thomas Kim**: Project grant 'Impact of Maternal Obesity on Offspring's Weight Regulation', DKK 2.997.615, Novo Nordisk Foundation

10. Group Leader **Thomas Kim**: Project grant 'Establishing a better animal model to investigate neurosarcoidosis', DKK 200.000, Fonden af fam. Kjærsgaard, Sunds

11. Group leader **Taro Kitazawa**: Project Grants in Bioscience and Basic Biomedicine 'Analysis of heterochronic interaction of multimodal epigenetic signatures during neuronal maturation', DKK 3.499.317, Novo Nordisk Fonden

12. Group Leader **Taro Kitazawa**: 'Genomics Toolbox for Tracing Neuronal Fate and Disease', DKK 2.582.604, Novo Nordisk Foundation

13. Group leader **Taro Kitazawa**: 'Single-Cell History Tracing in Human iPSC-Derived Neurons for Therapeutic Discovery', DKK 719.706, AUFF Nova

14. Group Leader **Taro Kitazawa**: Visiting EMBL Heidelberg, DKK 8.430, DANEMO

15. Senior Group Leader **Magnus Kjærgaard**: 'Biomolecular condensates: From fundamental principles to applications in health and biotech', DKK 500.000, Novo Nordisk Fonden

16. Senior Group Leader **Magnus Kjærgaard** & Professor, PhD **Bjørn P. Pedersen**: Center of Excellence: PlantPATh, DKK 60.000.000, Danish National Research Foundation

17. Senior Group Leader **Magnus Kjærgaard**: 'Targeted degradation of aberrant protein condensates', DKK 1.999.921, The Lundbeck Foundation

18. Group Leader **Anna Klawonn**: Richard J. Davidson Event: 'Well-being is a Skill - Neuroscience and the flavour of Aarhus', DKK 10.000, The Lundbeck Foundation

19. Research Group Coordinator and Communications Officer **Rikke S. Lindhard**: 'Visuelle grundforskningsfortællinger: udvikling af formsprog og produktionssamarbejder, der skal fremme videnskabelig nysgerrighed i offentligheden', DKK 2.144.062, Novo Nordisk Foundation

20. Affiliated Researcher **Sadegh Nabavi**: 'Efficient Learning Relies on Circuits for Innate Behaviors', DKK 2.993.532, Novo Nordisk Foundation

21. Screening grantee **Emily Karabeika**: 'Investigating SorCS2 in cerebellar development and neurodevelopmental disorders', DKK 30.000, Graduate School of Health

22. Postdoc **Francisca Pinheiro**: 'Engineering CaMKII dimerization modules as a fundamental synaptic targeting mechanism', DKK 2.400.000, The Lundbeck Foundation postdoc fellowship

23. Assistant Professor **Alena Salasova**: 'Implementing 3D imaging to study brain development in mice with psychiatric traits', DKK 14.400, Czech Biomaging grant

24. Group Leader **Chao Sun**: 'Synaptic ubiquitin signaling', DKK 3.000.000, Novo Nordisk Foundation

25. Group Leader **Chao Sun**: 'The Molecular Basis of Synaptic Diversity in Ca handling', project 1, DKK 3.000.000, The Independent Research Fund Denmark

26. Group Leader **Chao Sun**: Scientific enrichment grant, DKK 400.000, The Lundbeck Foundation

27. Associate Professor **Asami Tanimura**: 'Shaping reward circuits through early life social touch', DKK 2.000.000, The Lundbeck Foundation

28. Postdoc **Silvia Turchetto**: Postdoc fellowship, DKK 2.400.000, The Lundbeck Foundation

29. Postdoc **Silvia Turchetto**: conference stipend, DKK 7.500, FENS brain foundation

30. Master Student **Erika Uddström**: PhD fellowship, DKK 2.000.000, Neuroscience Academy Denmark

31. Team Leader **Gilles C. Vanwalleghem**: 'Neuroimmune Memory: Mapping and Manipulating Inflammation in the Brain-Body Axis', DKK 1.996.717, The Lundbeck Foundation

32. Associate Professor **Naoki Yamawaki**: 'Defining the brain circuit for dissociation using ketamine', DKK 2.000.000, The Lundbeck Foundation


8

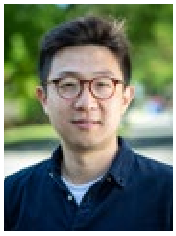

9

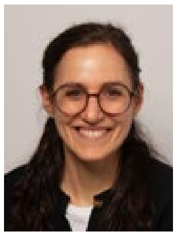

11


17


19


22


25


28


31

Invited talks and Outreach

JANUARY
Poul Henning Jensen: *Activation of SERCA Calcium Pump SERCA by Alpha-synuclein Aggregates and Implications to Neurodegeneration*, 4th Nordic Neuroscience Meeting, Copenhagen

Anna M. Klawonn: *Immune-to-Brain Mechanisms of Affective State and Parkinson's Disease*, DANDRITE retreat, Aarhus

Jelena Radulovic: *Neurobiological mechanisms by which stressful experiences shape brain circuits and the representation of negative memories,* 4th Nordic Neuroscience Meeting, Copenhagen

Chao Sun: *Synaptic Machinery for Protein Homeostasis,* Core2core Synapse biology in Health and Disease meeting, Copenhagen

Gilles Vanwalleghem: *Neuroimmunity along the gut-brain axis of zebrafish,* Copenhagen University, Denmark

Keisuke Yonehara: *Retinal mechanism for computing motion direction in the retina,* Tohoku University, Japan

FEBRUARY
Poul Henning Jensen: *Alpha-synuclein centered neurodegenerative studies – from molecule to wo/man,* Faculty of Health, Aarhus University

Anna M. Klawonn: *Exploring Circuits and Mechanisms of Affective State and Parkinson's Disease*, Faculty of Health, Aarhus University

Anna M. Klawonn: *Molecular Mechanisms of Affective Homeostasis,* DANDRITE Community meeting, Aarhus University

Jelena Radulovic: *DNA sensing in memory circuits,* 34th Annual Meeting of the Winter Conference on Neuronal Plasticity, Mexico

Chao Sun: *Synaptic Machinery for Molecular Homeostasis,* Max Planck Florida Institute of Neuroscience, USA

Tomonori Takeuchi: *Locus Coeruleus and Dopamine-Dependent Memory Consolidation in the Hippocampus*, Bonn Center of Neuroscience, University Bonn, Germany

Keisuke Yonehara: *Retinal mechanism for computing motion direction in the retina*, Tohoku University, Japan

MARCH
Poul Henning Jensen: *a-synuclein in brain, its models and role of a-syn aggregate strains,* NAD fellow course, Aarhus University

Poul Henning Jensen: *Wide-spread unappreciated alpha-synuclein aggregates in CNS – a causes of symptoms, caution and optimism in Parkinson's disease and Lewy body dementia?*, Labroots Neuroscience online meeting

Thomas Kim: *The molecular logic of neuronal specification in the zona incerta and reticular thalamic nucleus,* Novo Nordisk Foundation Center for Stem Cell Medicine, reNEW Copenhagen

Anders Nykjær: *Balancing role of sortilin in synaptic plasticity and mood state*, Molecular Psychiatry meeting, Hawaii

Anders Nykjær: *Identification of novel Wnt signaling regulation during brain morphogenesis and dopaminergic neuron development*, Molecular Psychiatry meeting, Hawaii

Keisuke Yonehara: *Diverse GABA signaling in the inner retina enables spatiotemporal coding,* Ritsumeikan University, Japan

APRIL
Chao Sun: *Synaptic Machinery for Molecular Homeostasis*, Hunan University, China

Chao Sun: *Synaptic Machinery for Molecular Homeostasis*, Max Delbrück Center for Molecular Medicine, Germany

Chao Sun: *Synaptic Machinery for Molecular Homeostasis*, University of Hannover, Germany

MAY
Sara Derosa: *Local Regulators of Synaptic Calcium Homeostasis,* MBG Annual meeting, Aarhus University

Anna M. Klawonn: *Immune-to-Brain Mechanisms of Affective State and Parkinson's Disease*, Biomedicine Seminar Series, Aarhus University

Anna M. Klawonn: *Immune-to-Brain Mechanisms of Affective State and Parkinson's Disease*, Open Discovery Innovation Network (ODIN), Copenhagen

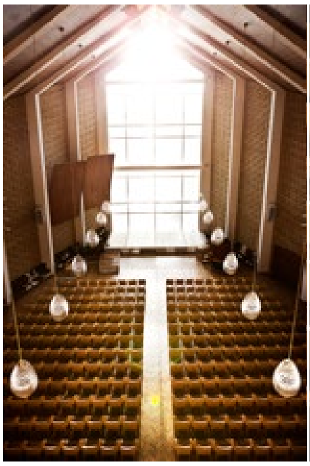
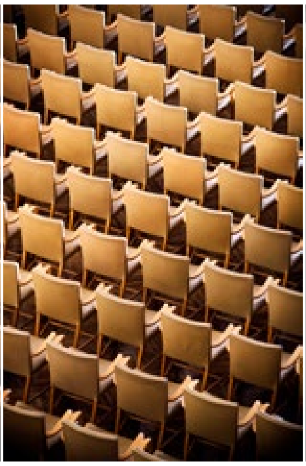
Tomonori Takeuchi: *Locus Coeruleus and Dopamine-Dependent Memory Consolidation in the Hippocampus*, New York University Abu Dhabi, United Arab Emirates

Keisuke Yonehara: *Diverse neural activity in the mouse superior colliculus,* UCSF, San Francisco, USA

JUNE
Thomas Kim: *The molecular logic of neuronal specification in the zona incerta and reticular thalamic nucleus,* Kyoto, Japan

Magnus Kjærgaard: *Is the NMDA receptor targeted to synapses through phase separation?*, Biopharmaceutical seminar series, University of Copenhagen

Chao Sun: *Synaptic Machinery for Protein Homeostasis,* FENS, Austria


Photos: Roar Lava Paaske/AU-Kommunikation and Lars Kruse/AU Kommunikation

JULY
Taro Kitazawa: *Recording cellular memory to unveil the mechanism of brain memory*, University of Tokyo, Japan

AUGUST
Taro Kitazawa: *Recording cellular memory to unveil the mechanism of brain memory*, EMBL Heidelberg, Germany

Taro Kitazawa: *Recording cellular memory to unveil the mechanism of brain memory*, Kumamoto University, Japan

Francisca Pinheiro: *Engineering CaMKII dimerization modules as a fundamental synaptic targeting mechanism*, ArtBio conference, Aarhus University

Asami Tanimura: *The role of endopiriform nucleus in memory*, BRICK Neuro meeting seminar, Copenhagen

Naoki Yamawaki: *Establishing tissue clearing and image analysis pipeline for mouse brain circuit study*, Lightsheet workshop, Aarhus University

SEPTEMBER
Anna M. Klawonn: *Immune-to-Brain Mechanisms of Affective State and Parkinson's Disease*, Nordic EMBL partnership meeting

Francisca Pinheiro: *Engineering CaMKII dimerization modules as a fundamental synaptic targeting mechanism*, Nordic EMBL partnership meeting

Chao Sun: *Synaptic Machinery for Protein Homeostasis*, EMBL Heidelberg, Germany

Chao Sun: *Synaptic Machinery for Protein Homeostasis*, University of Bergen, Norway

Silvia Turchetto: *Local Regulators of Synaptic Ubiquitin Signaling*, Nordic EMBL partnership meeting

OCTOBER
Nicolas Foutel and Maria Correia: *Phosphorylation in biomolecular condensates*, Copenhagen Condensate symposium

Ankush Grag: *Oxygen partitioning in biomolecular condensates*, Copenhagen Condensate symposium

Anna M. Klawonn: *Immune-to-Brain Mechanisms of Affective State and Parkinson's Disease*, Neuroscience Theme retreat

Marine Mantel: *Zebrafish model of inflammation in the gut*, LBBB meeting, Thailand

Silvia Turchetto: *Ubiquitin Signaling of Ribosomal proteins at Synapses*, FENS Brain conference, Copenhagen

Valentina Villani: *Local Regulators of Synaptic Protein Lifetime*, NAD annual meeting, Copenhagen

Naoki Yamawaki: *Mechanism of stress state effect on memory circuit*, Department retreat, Grenaa

NOVEMBER
Taro Kitazawa: *Recording cellular memory to unveil the mechanism of brain memory*, FMI, Switzerland

Taro Kitazawa: *Recording cellular memory to unveil the mechanism of brain memory*, Oxford University, UK

Magnus Kjærgaard, *Applications of intrinsically disordered proteins in biotech*, Biotech seminar series, DTU

Chao Sun: *Synaptic Machinery for Protein Homeostasis*, Qilu Hospital, China

DECEMBER
Anna M. Klawonn: *Immune-to-Brain Signaling in Affective State*, AIAS Seminar Series, Aarhus University

Chao Sun: *Synaptic Machinery for Protein Homeostasis*, Peking University, China

Tomonori Takeuchi: *Unveiling neural foundations of identity: Pathways to enhanced cognition and well-being*, 2024 GIFT International Symposium on Future Technologies, Shanghai Jiao Tong University, China

Publications 2024

Peer-reviewed

1. Bai, Z., Gholipourshahraki, T., Shrestha, M., Hjelholt, A., Hu, S., **Kjolby, M.,** Rohde, P. D., & Sørensen, P. (2024). Evaluation of Bayesian Linear Regression derived gene set test methods. BMC Genomics, 25(1), Article 1236. https://doi.org/10.1186/s12864-024-11026-2

2. **Davis, M. C.,** André, A. A. M., & **Kjaergaard, M.** (2024). Entering the Next Phase: Predicting Biological Effects of Biomolecular Condensates. Journal of Molecular Biology, 436(21), Article 168645. https://doi.org/10.1016/j.jmb.2024.168645

3. de Andrade Melo Knaut, S., Hoang, M. A., Bossard, E. K., Chiquito, V. R., Mazepa, M. E., Portela, L. A., Zene, M. V., Packham, T. L., Dyer, J. O., **Mermet-Joret, N.,** Annoni, J. M., & Spicher, C. J. (2024). Static Mechanical Allodynia is a paradoxical painful touch-evoked tactile HYPO-aesthesia: A retrospective analysis of 86 patients with CRPS of the foot. Douleur et Analgesie, 37(2), 77-86. https://doi.org/10.1684/dea.2024.0291

4. De Pol, F., Baranowski, M., **Neumann, C.,** Trampari, S., **Nissen, P.,** & Pérez, J. (2024). Simulation and modelling of the detergent corona around the membrane protein MhsT based on SAXS data. Journal of Applied Crystallography, 57, 1415-1425. https://doi.org/10.1107/S1600576724006721

5. Farahani, E., Reinert, L. S., Narita, R., Serrero, M. C., Skouboe, M. K., van der Horst, D., Assil, S., Zhang, B., Iversen, M. B., Gutierrez, E., Hazrati, H., Johannsen, M., Olagnier, D., Kunze, R., **Denham, M.,** Mogensen, T. H., Lappe, M., & Paludan, S. R. (2024). The HIF transcription network exerts innate antiviral activity in neurons and limits brain inflammation. Cell Reports, 43(2), 113792. Article 113792. https://doi.org/10.1016/j.celrep.2024.113792

6. **Faress, I., Khalil, V., Hou, W. H., Moreno, A.,** Andersen, N., Fonseca, R., Piriz, J., **Capogna, M.,** & **Nabavi, S.** (2024). Non-Hebbian plasticity transforms transient experiences into lasting memories. eLife, 12, Article RP91421. https://doi.org/10.7554/eLife.91421

7. Farkhondeh Tale Navi, F., Heysieattalab, S., Raoufy, M. R., Sabaghypour, S., **Nazari, M.,** & Nazari, M. A. (2024). Adaptive closed-loop modulation of cortical theta oscillations: Insights into the neural dynamics of navigational decision-making. Brain Stimulation, 17(5), 1101-1118. https://doi.org/10.1016/j.brs.2024.09.005

8. Gamaleldin, M., Yu, N. K., Diedrich, J. K., Ma, Y., Wienand, A., McClatchy, D. B., **Nykjaer, A., Nabavi, S.,** & Yates, J. R. (2024). DiDBiT-TMT: A Novel Method to Quantify Changes in the Proteomic Landscape Induced by Neural Plasticity. Journal of Proteome Research, 23(11), 4878-4895. https://doi.org/10.1021/acs.jproteome.4c00180

9. Garg, A., **González-Foutel, N. S.,** Gielnik, M. B., & **Kjaergaard, M.** (2024). Design of functional intrinsically disordered proteins. Protein Engineering, Design and Selection, 37, Article gzae004. https://doi.org/10.1093/protein/gzae004

10. Gholipourshahraki, T., Bai, Z., Shrestha, M., Hjelholt, A., Hu, S., **Kjolby, M.,** Rohde, P. D., & Sørensen, P. (2024). Evaluation of Bayesian Linear Regression models for gene set prioritization in complex diseases. PLOS Genetics, 20(11), Article e1011463. https://doi.org/10.1371/journal.pgen.1011463

11. Herrera, S. A., Justesen, B. H., **Dieudonné, T.,** Montigny, C., **Nissen, P.,** Lenoir, G., & Pomorski, T. G. (2024). Direct evidence of lipid transport by the Drs2-Cdc50 flippase upon truncation of its terminal regions. Protein Science, 33(3), e4855. Article e4855. https://doi.org/10.1002/pro.4855

12. Hong, I., Kim, J., Hainmueller, T., **Kim, D. W.,** Keijser, J., Johnson, R. C., Park, S. H., Limjunyawong, N., Yang, Z., Cheon, D., Hwang, T., Agarwal, A., Cholvin, T., Krienen, F. M., McCarroll, S. A., Dong, X., Leopold, D. A., Blackshaw, S., Sprekeler, H., ... Huganir, R. L. (2024). Calcium-permeable AMPA receptors govern PV neuron feature selectivity. Nature, 635(8038), 398-405. https://doi.org/10.1038/s41586-024-08027-2

13. Hu, Q., Sitsel, O., Bågenholm, V., Grønberg, C., Lyu, P., Pii Svane, A. S., Andersen, K. R., Laursen, N. S., Meloni, G., **Nissen, P.,** Juhl, D. W., Nielsen, J. T., Nielsen, N. C., & Gourdon, P. (2024). Transition metal transporting P-type ATPases: terminal metal-binding domains serve as sensors for autoinhibitory tails. FEBS journal. Advance online publication. https://doi.org/10.1111/febs.17330

14. Jensen, N. M., Fu, Y. H., **Betzer, C.,** Li, H., **Elfarrash, S.,** Shaib, A. H., Krah, D., **Vitic, Z., Reimer, L., Gram, H.,** Buchman, V., **Denham, M.,** Rizzoli, S. O., Halliday, G. M., & **Jensen, P. H.** (2024). MJF-14 proximity ligation assay detects early non-inclusion alpha-synuclein pathology with enhanced specificity and sensitivity. npj Parkinson's Disease , 10(1), Article 227. https://doi.org/10.1038/s41531-024-00841-9

15. Jovasevic, V., Wood, E. M., Cicvaric, A., Zhang, H., Petrovic, Z., Carboncino, A., Parker, K. K., Bassett, T. E., **Moltesen, M., Yamawaki, N.,** Login, H., Kalucka, J., Sananbenesi, F., Zhang, X., Fischer, A., & **Radulovic, J.** (2024). Formation of memory assemblies through the DNA-sensing TLR9 pathway. Nature, 628(8006), 145-153. https://doi.org/10.1038/s41586-024-07220-7

16. Kapucu, F. E., Tujula, I., Kulta, O., Sukki, L., Ryynänen, T., **Gram, H.,** Vuolanto, V., Vinogradov, A., Kreutzer, J., **Jensen, P. H.,** Kallio, P., & Narkilahti, S. (2024). Human tripartite cortical network model for temporal assessment of alpha-synuclein aggregation and propagation in Parkinson's Disease. npj Parkinson's Disease , 10(1), Article 138. https://doi.org/10.1038/s41531-024-00750-x

17. **Kim, D. W.,** Kim, S., Han, J., Belday, K., Li, E., Mahoney, N., Blackshaw, S., & Rajaii, F. (2024). Transcriptomic profiling of thyroid eye disease orbital fat demonstrates differences in adipogenicity and IGF-1R pathway. JCI Insight, 9(24), Article e182352. https://doi.org/10.1172/jci.insight.182352

18. Larsen, S. T., **Dannersø, J. K., Nielsen, C. J. F.,** Poulsen, L. R., Palmgren, M., & **Nissen, P.** (2024). Conserved N-terminal Regulation of the ACA8 Calcium Pump with Two Calmodulin Binding Sites. Journal of Molecular Biology, 436(20), Article 168747. https://doi.org/10.1016/j.jmb.2024.168747

19. Liekniņa, I., **Reimer, L.,** Panteļejevs, T., Lends, A., Jaudzems, K., El-Turabi, A., **Gram, H., Hammi, A., Jensen, P. H.,** & Tārs, K. (2024). Structural basis of epitope recognition by anti-alpha-synuclein antibodies MJFR14-6-4-2. npj Parkinson's Disease , 10(1), Article 206. https://doi.org/10.1038/s41531-024-00822-y

20. Mohammadzadeh, J., Raoufy, M. R., **Nazari, M.,** & Sajedi, R. H. (2024). Bioluminescence measurement of superoxide anion in infertile men with oxidative stress. Journal of Photochemistry and Photobiology B: Biology, 252, Article 112852. https://doi.org/10.1016/j.jphotobiol.2024.112852

21. Nakamura, H., Yamamoto, S., **Kawamura, Y. K., Kitazawa, T.,** Kimura, M., & Kitazawa, Y. (2024). Enhancing Membrane Permeability of Fluorescein-Type Chromophore Through Covalent Attachment of Chlorinated Dodecaborate. Molecules, 29(22), Article 5416. https://doi.org/10.3390/molecules29225416

22. Nielsen, J., Lauritsen, J., Pedersen, J. N., Nowak, J. S., Bendtsen, M. K., Kleijwegt, G., Lusser, K., Pitarch, L. C., Moreno, J. V., Schneider, M. M., Krainer, G., Goksøyr, L., Khalifé, P., Kaalund, S. S., Aznar, S., **Kjærgaard, M.,** Sereikaité, V., Strømgaard, K., Knowles, T. P. J., ... Otzen, D. E. (2024). Molecular properties and diagnostic potential of monoclonal antibodies targeting cytotoxic α-synuclein oligomers. npj Parkinson's Disease,10(1), Article 139. https://doi.org/10.1038/s41531-024-00747-6

23. **Pedersen, C. N.,** Yang, F., Ita, S., Xu, Y., Akunuri, R., Trampari, S., Neumann, C. M. T., Desdorf, L. M., Schiøtt, B., Salvino, J. M., Mortensen, O. V., **Nissen, P.,** & Shahsavar, A. (2024). Cryo-EM structure of the dopamine transporter with a novel atypical non-competitive inhibitor bound to the orthosteric site. Journal of Neurochemistry, 168(9), 2043-2055. https://doi.org/10.1111/jnc.16179

24. Riazi, H., **Nazari, M.,** Raoufy, M. R., Mirnajafi-Zadeh, J., & Shojaei, A. (2024). Olfactory Epithelium Stimulation Using Rhythmic Nasal Air-Puffs Improves the Cognitive Performance of Individuals with Acute Sleep Deprivation. Brain sciences, 14(4), Article 378. https://doi.org/10.3390/brainsci14040378

25. Rusakov, K., El-Turabi, A., **Reimer, L., Jensen, P. H.,** & Hanczyc, P. (2024). Thioflavin T–a Reporter of Microviscosity in Protein Aggregation Process: The Study Case of α-Synuclein. Journal of Physical Chemistry Letters, 15(25), 6685-6690. https://doi.org/10.1021/acs.jpclett.4c00699

26. Salimi, M., **Nazari, M.,** Shahsavar, P., Dehghan, S., Javan, M., Mirnajafi-Zadeh, J., & Raoufy, M. R. (2024). Olfactory bulb stimulation mitigates Alzheimer's-like disease progression. CNS Neuroscience and Therapeutics, 30(10), Article e70056. https://doi.org/10.1111/cns.70056

27. Singh, V., Itoh, Y., Del'Olio, S., Hassan, A., Naschberger, A., **Flygaard, R. K.,** Nobe, Y., Izumikawa, K., Aibara, S., Andréll, J., Whitford, P. C., Barrientos, A., Taoka, M., & Amunts, A. (2024). Mitoribosome structure with cofactors and modifications reveals mechanism of ligand binding and interactions with L1 stalk. Nature Communications, 15(1), Article 4272. https://doi.org/10.1038/s41467-024-48163-x

28. **Sun, C., & Nissen, P.** (2024). Observing A Protein In Its Natural Habitat. Materials Today Physics, 43, Article 101417. https://doi.org/10.1016/j.mtphys.2024.101417

29. Vlasceanu, M., Doell, K. C., Bak-Coleman, J. B., Todorova, B., Berkebile-Weinberg, M. M., Grayson, S. J., Patel, Y., Goldwert, D., Pei, Y., Chakroff, A., Pronizius, E., van den Broek, K. L., Vlasceanu, D., Constantino, S., Morais, M. J., Schumann, P., Rathje, S., Fang, K., Aglioti, S. M., ... **Soud, K.** ... Van Bavel, J. J. (2024). Addressing climate change with behavioral science: A global intervention tournament in 63 countries. Science Advances, 10(6), Article eadj5778. https://doi.org/10.1126/sciadv.adj5778

30. Yamamoto, S., Nakamura, H., **Kawamura, Y. K., Kitazawa, T.,** Kimura, M., & Kitazawa, Y. (2024). Alkoxy Substituted Brominated closo-Dodecaborates with Functionalized Aliphatic Spacers. Chemistry (Switzerland), 6(6), 1635-1644. https://doi.org/10.3390/chemistry6060099

31. **Sun, C.** (2024). Single-Molecule-Resolution Approaches in Synaptic Biology. Journal of Physical Chemistry B, 128(13), 3061-3068. https://doi.org/10.1021/acs.jpcb.3c08026

PhD Dissertations 2024

1. Boxy, P. (2024). The role of autism risk gene SorCS2 in cerebellar development.

2. Højgaard, K. (2024). Novelty-induced Consolidation of Hippocampus-Dependent Memories.

3. Jensen, N.M. (2024). Investigating markers of inclusion and non-inclusion -synuclein aggregate pathology in Parkinson's disease and related disorders.

4. Pheasant, E.C. (2024). Dissecting the role of the NMDA receptor's disordered C-terminal tails in receptor trafficking and synaptic plasticity.

5. Soud, K. (2024). Investigation of Dopamine Release in the Dorsal Hippocampus upon Novelty Exploration and Optogenetic Stimulation of the Locus Coeruleus.

6. Sørensen, K. M.J. (2024). The VPS10P Domain Receptor Sortilin in Excitatory and Inhibitory Neurons.

7. Woloszczuková, L. (2024). The role of SorCS2 and SorCS3 in neurodevelopment.

8. Woo, T. F. (2024). The neural representation of sequences in the medial prefrontal cortex. Aarhus University.

FINANCIALLY SUPPORTED BY:

AARHUS UNIVERSITY

LUNDBECKFONDEN

DANDRITE IS THE DANISH NODE OF THE NORDIC EMBL PARTNERSHIP FOR MOLECULAR MEDICINE:

EMBL

NORDIC **EMBL** PARTNERSHIP FOR MOLECULAR MEDICINE

DANDRITE is located at the following addresses at Aarhus University:

Department of Molecular Biology and Genetics
Universitetsbyen 81
DK- 8000 Aarhus

Department of Biomedicine
Høegh-Guldbergs Gade 10
Building 1116
DK- 8000 Aarhus

www.dandrite.au.dk